

Application No. 10/635,777

REMARKS

Reexamination and reconsideration of this application is respectfully requested in light of foregoing amendments to the claims and the following remarks.

Claims 13, 14, 21 and 22 are pending in the present application. Claim 13 has been amended. New claims 21 and 22 have been added. Support for amended claim 13 and new claims 21 and 22 can be found in original claim 14 as well as at pages 4, 5 and 11 of the specification

Rejection Under 35 U.S.C. § 112

Claims 13 and 14 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because "x" is not defined. Claim 13 has been amended to define x as being " $0.1 \leq x \leq 0.15$." By this amendment, since claim 14 is dependent on claim 13, the rejection of claims 13 and 14 should be overcome. It is respectfully requested that the rejection be reconsidered and withdrawn.

Rejection Under 35 U.S.C. § 103

Claims 13 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka et al. (U.S. Patent No. 4,727,004). The reference discloses a thin film electroluminescent device comprising, *inter alia*, a first insulating layer on a substrate, an emitting layer of CaS doped with Eu coated on the first insulating layer, and a second insulating layer on the CaS doped layer. The reference fails to disclose or suggest two separate and distinct contiguous semiconductor layers as required by claim 13 as amended. It also fails to disclose or suggest two semiconductor layers having the same crystalline structure with one semiconductor layer being a light emitting layer. Further, the reference does not specifically disclose a light emitting $Mg_{1-x}Ca_xS$ layer, wherein x is $0.1 \leq x \leq 0.15$, and wherein the $Mg_{1-x}Ca_xS$ is doped with Eu.

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For all of the foregoing reasons, the electroluminescent structures defined by claims 13 and claim 14 are not disclosed or suggested by Tanaka et al. It is respectfully requested that the rejection of the claims for obviousness over Tanaka et al. be reconsidered and withdrawn.

New Claims 21 and 22

New claims 21 and 22 have been added to further define the invention.. These claims are ultimately dependent on base claim 13, which is believed patentable over Tanaka et al. for reasons set forth *supra*. Further, Tanaka et al. does not disclose a first compound semiconductor and a second compound semiconductor having an orientation in the <100> direction as required by the new claims.

Conclusion

It is submitted that the claims 13, 14, 21 and 22 are patentable over the teachings of the prior art relied upon by the Examiner and satisfy the requirement of the second paragraph of 35 U.S.C. § 112. Accordingly, favorable reconsideration of the claims is requested in light of the preceding amendments and remarks. Allowance of the claims is courteously solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicant's attorney at the telephone number shown below.

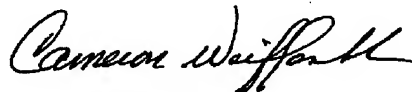
To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due under 37 C.F.R. § 1.17 and due in

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connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper (including any paper referred to as being attached or enclosed) is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.


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Date: November 15, 2007.